



NATIONAL INSTITUTE OF HYGIENE EPIDEMIOLOGY

**JOINT EFFORT IN HUMAN AND
ANIMAL HEALTH RESEARCH AND
REPORTING SYSTEM IN VIETNAM**

Bangkok, February 2018

ONE PLANET ONE FUTURE

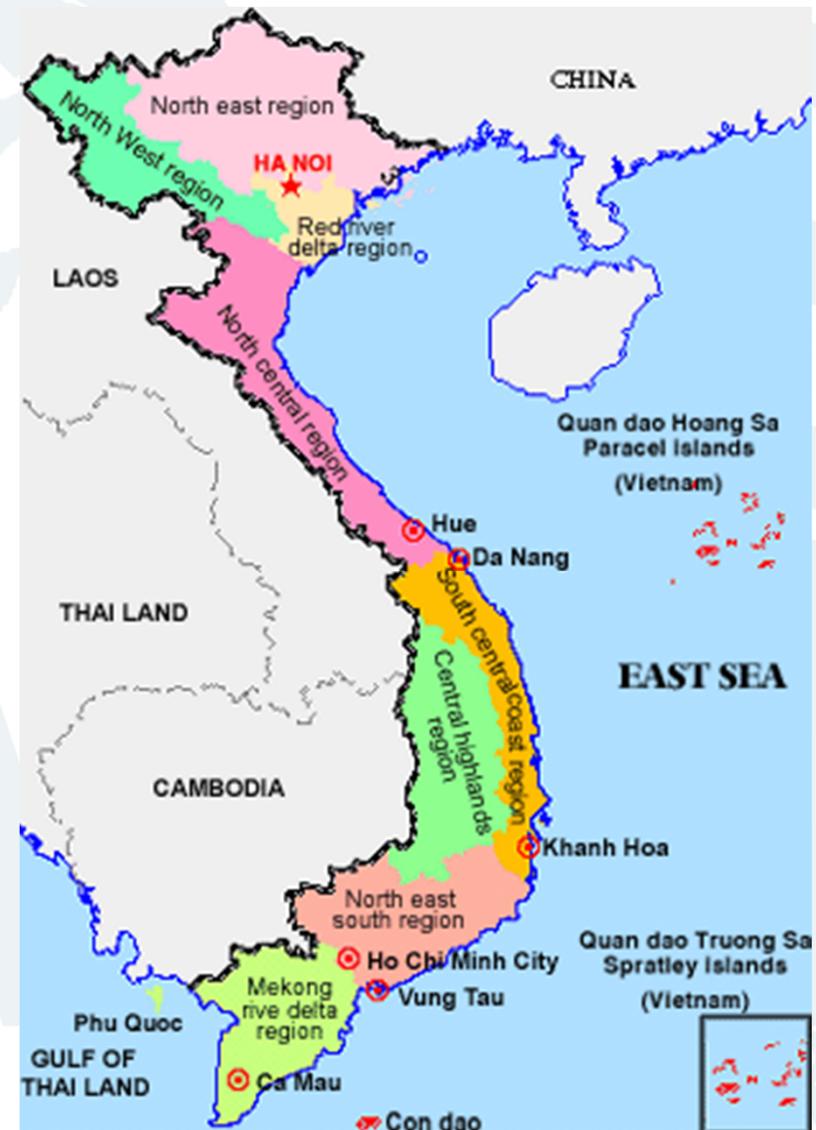


Presentation Overview

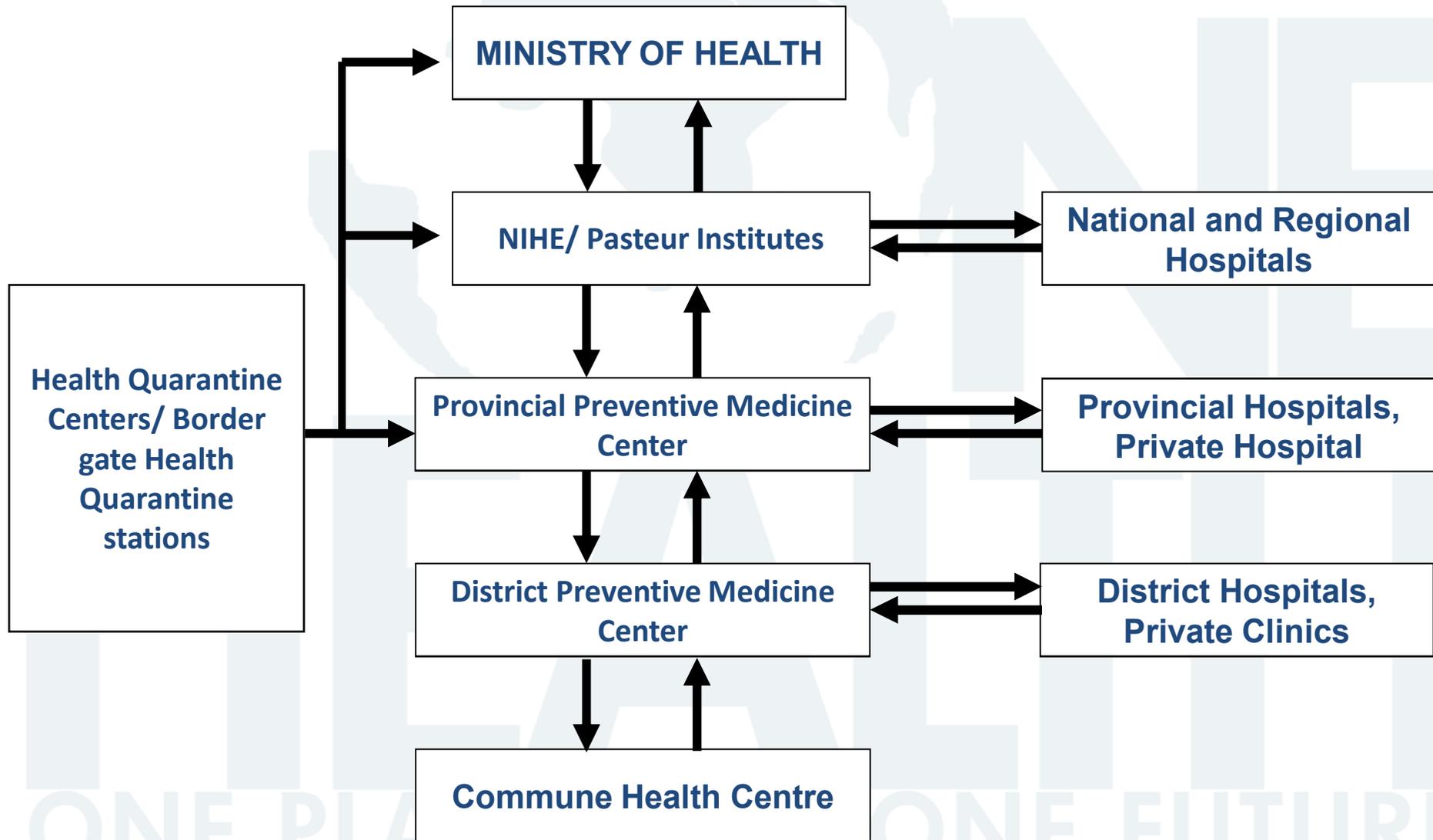
1. Communicable Disease Surveillance system
2. Rationale for multidisciplinary approach in communicable disease surveillance and research
3. Challenges of One Health approach in communicable disease surveillance and research
4. Conclusions

GENERAL INFORMATION (2010)

- **Population: 90 millions**
- **Regions: 4 regions**
- **Provinces: 63**
- **Districts: 700**
- **Communes: 10,253**



COMMUNICABLE DISEASE SURVEILLANCE SYSTEM



NOTIFIABLE DISEASES IN VIETNAM (MONTHLY REPORT)

Cholera	Malaria	Neonatal Tetanus	Influenza
Typhoid	Viral Hepatitis	Other tetanus	Adenoviral conjunctivitis
Shigellogis	Rabies	AFP	Plague
Amoebiasis	Meningitis	Measles	Influenza A(H5N1)
Diarrhea	Varicella	Mump	Rubella
Viral encephalitis	Diphtheria	Leptospirosis	Hand – foot and mouth diseases
Dengue fever	Pertussis	Anthrax	Human streptococcus suis

BORDER GATE HEALTH QUARANTINE NETWORK

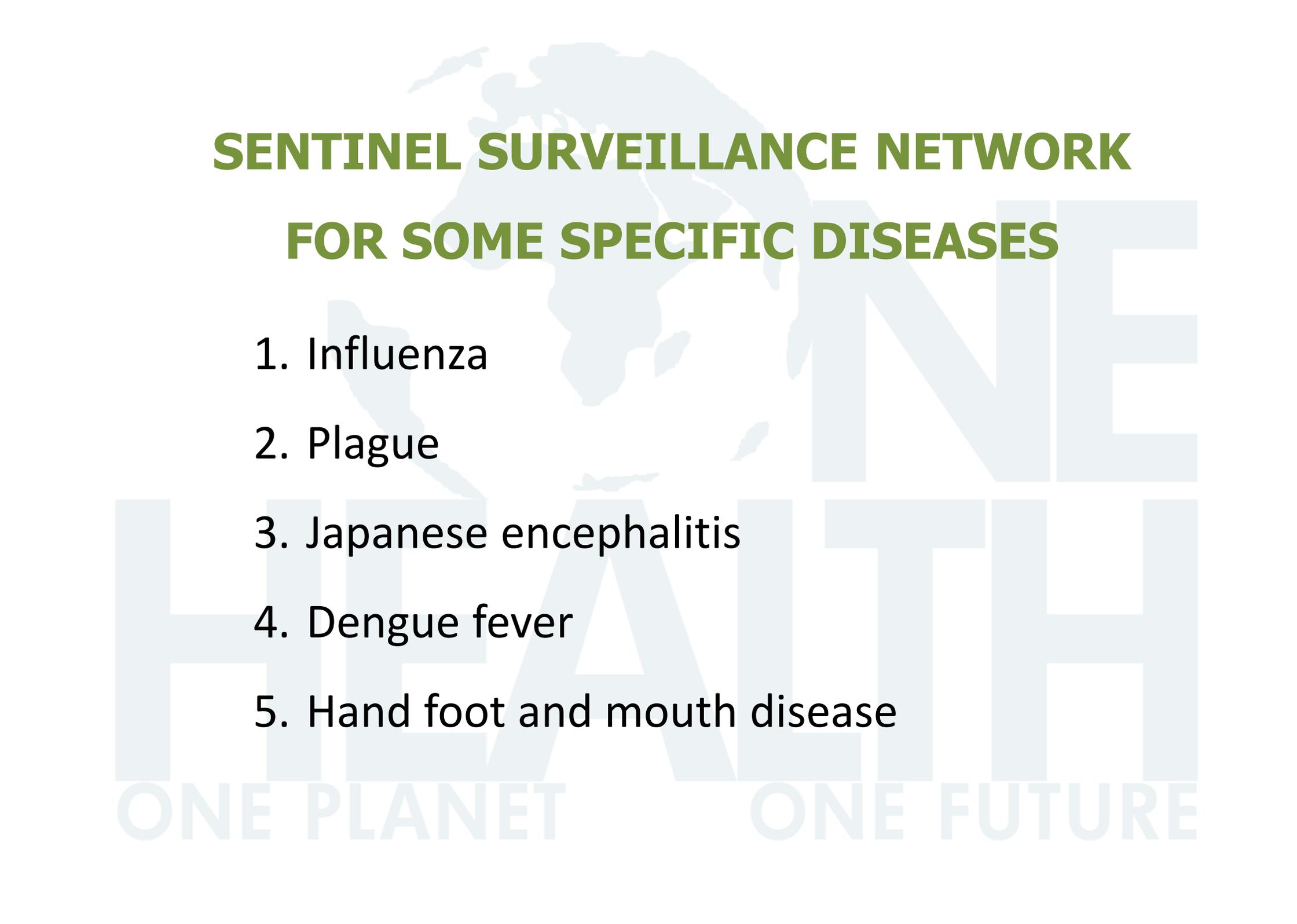


Total: 44 stations (ports of entry)

-Vietnam - China: 1281 km, 17 stations

- Vietnam - Laos: 2130 km, 11 stations

-Vietnam - Cambodia: 1228 km, 16 stations



SENTINEL SURVEILLANCE NETWORK FOR SOME SPECIFIC DISEASES

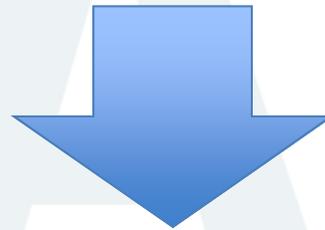
1. Influenza
2. Plague
3. Japanese encephalitis
4. Dengue fever
5. Hand foot and mouth disease

RECENTLY EMERGING INFECTIOUS DISEASES IN VIETNAM

Diseases	Period	Cases/deaths
SARS	2003	63 / 5
Avian influenza	2003 – 2018	127 / 64
Rabies	2009 – 2017	469 deaths
Anthrax	2009 - 2017	437/1
Dengue fever	Every year	100.000 – 150.000 cases / 100 deaths per year

RECENTLY EMERGING INFECTIOUS DISEASES IN THE WORLD

- EIDs poses a continuing threat to health security all over of the world.
- New pathogens from animals, particularly viruses, remain unpredictable, continue to emerge and spread across countries.
- Approximately 60% of all human infectious diseases and 70% of those reported in the last 30 years are thought to have originated from animals.
- Most recently, the global health are threatened by the outbreaks of avian influenza H7N9, H5N6 from China, MERS-CoV from Middle-East region, as well as Ebola from West Africa.



One Health' approach is being increasingly adopted which emphasizes multi-sectoral and multi-disciplinary approach at various levels: international, regional, national and community levels.

RATIONALE FOR MULTIDISCIPLINARY APPROACH

- The situation of communicable diseases in Vietnam is considered complicated for recent 10 years. Especially, zoonotic diseases, such as avian flu, anthrax and rabies, are increasing and causing a large effect to the community health.
- Joint effort in research and control of communicable disease plays an important role. Multidisciplinary approach from global, national level to local, commune level has been acknowledged and applied widely.
- The surveillance and research on communicable diseases in Vietnam has been concerned and focused in the Law on Prevention and Control of Infectious Diseases
- The joint Circular number 16/2013/TTLT-BYT-BNN&PTNT about joint effort in prevention and control of zoonotic diseases. The collaboration in the surveillance, investigation, outbreak control, and other activities such as training, communication, research on zoonotic diseases ranges between health and agriculture sectors

Joint researches between animal and human health sectors

1. Animal-Human interface: Influenza viruses infecting human and animal in Vietnam, 2009-2014 (Funded by US-CDC)
2. Cross sectional study on influenza in human and pigs at slaughter house in selected area in Vietnam, 2013-2014. (Funded by US-CDC)
3. Seroprevalance of S.suis among people whose occupation related to pigs in Nam Dinh province, 2014 (Funded by WHO)
4. Dogs ecology study and KAP of community on Rabies in Vietnam, 2012 (Funded by FAO)



**CHALLENGES
OF ONE HEALTH APPROACH
IN COMMUNICABLE DISEASE
SURVEILLANCE AND RESEARCH**

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MECHANISM OF COLLABORATION

- Clear mechanism has not been built, leading to the inconsistent collaboration in local levels.
- The collaborated activities in the prevention and control of infectious diseases are still passive and remain in the national level only.
- There is still weakness in the joint effort to manage food safety.

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TECHNICAL ASPECT

- Standard operating procedures of the outbreaks response and control have not been unified.
- Differences of the diseases surveillance priority still remains between health and agriculture sectors.
- The test results to identify etiology sometimes differs from each other, affecting to the official outbreak announcement.
- Rate of vaccinated animals is quite low, vaccination is not carried out regularly. Particularly for rabies, domestic dog population is not concentrated. A majority of dogs are raised by households. It is difficult to manage and vaccinate dogs, especially at the remote and mountainous areas.

HEALTH COMMUNICATION AND INFORMATION SHARING

- The awareness of the prevention and control of zoonotic diseases remains low.
- Official channel of sharing information between disciplinary sectors in the surveillance system has not been established.
- The information of the outbreaks in animals and human is not updated timely. There is only focused on avian influenza, which is updated solely in the national level.
- Risk of exposure to zoonotic diseases is increasing due to the custom of people in agriculture: private livestock growing, growing livestock near living areas, pasturing.
- Awareness and involvement of local authorities in prevention and control of zoonosis in most areas remains low and limited.

RESEARCH ASPECTS AND RESOURCE

- Clear mechanism has not been built, especially for the budget, leading to collaboration on communicable disease research just for avian flu so far. Other zoonosis such as rabies, anthrax, S.suis are still not studied in context of multidisciplinary approach.
- For human resources and fund: The commune level lacks specialized staffs. Fund for activities of prevention and control diseases is low.

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CONCLUSION

- Joint effort in the surveillance and research on communicable diseases is an essential element in the prevention and control, particularly in zoonotic diseases. However, the cooperation currently has not been meet the practical demand, only focused on activities in the central level.
- This joint effort thus need to be improved in every discipline and focused on every level in the surveillance system and for research.
- Collaboration between countries in regional level as well as in overseas level is necessary to increase the effect of research, surveillance and control of transmitted diseases.

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***THANK YOU
FOR YOUR ATTENTION!***

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